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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,356	03/09/2000	Martin Greppmair	72.011	9745

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EXAMINER

ADDIE, RAYMOND W

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 08/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/508,356

Applicant(s)

GREPPMAIR, MARTIN

Examiner

Raymond W. Addie

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 15 July 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 4, 8 are objected to because of the following informalities:

The phrase "dampening bush" should be --dampening bushing--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linz #

3,756,735 in view of Darda # 3,957,309.

Linz discloses a vibration tamper comprising:

A working mass (5), which is driven in a tamping manner, via a crank mechanism (2, 3, 4, 6, 7, 8) and a spring mechanism (9, 10, 11).

A motor belonging to an upper mass (1) wherein the crank mechanism has at least one structural element (3, 4, 6) which is movable linearly back and forth. Said structural element (4) comprising a guide piston, element (3) comprises a connecting rod, element 6 comprising a piston guide. See col. 4, lines 11-65.

What Linz does not disclose is a connecting rod made of a material less dense than steel. However, Darda teaches a tamping device for breaking up rocks comprising an aluminum guide piston assembly (1), having an aluminum piston guide (18).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the vibration tamper of Linz, with an aluminum piston assembly, in order to reduce the dead weight of the tamper.

3. Claims 3, 4, 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linz in view of Darda, as applied to claim 1 above, and further in view of Pauliukonis # 3,703,125.

Linz in view of Darda disclose essentially all that is claimed, except for a plastic piston assembly. However, Pauliukonis discloses an all plastic piston and cylinder assembly, including an integrally molded end closure, such as a dampening bushing (4, 6). See Fig. 1; col. 2, lines 24-68.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the vibration tamper of Linz, in view of Darda, with a plastic cylinder assembly, as taught by Pauliukonis, in order to reduce the deadweight of the tamper.

Response to Arguments

4. Applicant's arguments filed 7/15/2002 have been fully considered but they are not persuasive.

The Applicant amended the specification and Claims 4, 8 to replace the phrase "damping bush", with the phrase "dampening bush"; per the Examiner's suggestion. However, the suggestion made was to replace the phrase "damping bush" with the phrase --dampening bushing--; see paragraph 4 of the Last Office Action. The purpose of the objection to the cited language was to provide a clear understanding of the structural feature being disclosed. Both phrases "damping bush" and "dampening bush" are indefinite since one of ordinary skill in the art, would not understand the structural features being cited. Whereas, the word --bushing-- is defined in Merriam Webster's Collegiate Dictionary, 10th edition as: "usually a removable cylindrical lining for an opening used to limit the size of the opening, resist abrasion or serve as a guide". In the present case, the phrase --dampening bushing-- would be seen to recite, "a bushing for dampening vibrations".

Hence, the objection is upheld.

The Applicant argues against the rejection of Claims 1 and 2 by stating "because, *inter alia* there is no teaching or suggestion to combine the references to produce the claimed invention...

Furthermore, even if the references were combined as proposed by the Examiner, the invention would not result".

The Applicant supports the argument by suggesting "The Examiner characterizes figures 3-6 of Linz as illustrating piston-cylinder assemblies of the claimed type...

This is not the case".

However, the Examiner did not reference, nor discuss figures 3-6 in the rejection of claims 1 and 2. The only discussion of Figures 3-6 is in response to Applicant's arguments that were filed 8/27/2001. See the Last Office Action page 9, lines 5-10.

As for the Applicant's argument that there is no suggestion to combine the references , the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skill in the art, would be motivated to make the proposed combination of primary and secondary reference. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as whole would suggest to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA 1969). In this case, Linz discloses a vibration tamper of old and well known construction and operation.

What Linz does not disclose is making the

"at least one structural element...from a material, the density of which is lower than that of steel". Which is no more than a negative recitation against the use of steel for the "at least one structural element.

To that affect, Darda teaches a similar earth-working tool, having similar reciprocating structural element performing the primary function of the tool. Darda, teaches at least one structural element (18) may be made of aluminum, which is a material less dense than steel. Although Darda does not "expressly articulate" why the element (18) is made of aluminum rather than some other preferred material, only that the element (18) is made of aluminum. Therefore, the references clearly show the obviousness of the invention, as claimed. Further, it would be obvious to one of ordinary skill in the art, that manually operated tamping machines are difficult to carry and operate due to the inherent dead weight of the machine. It would be also an obvious motivation to reduce the dead weight, where possible, without reducing the load strength, or applied impact forces generated by the machine. Therefore, utilization of a lighter weight material would be an obvious solution to solving the problem of carrying and operating manually operated earth-working tools.

Still further, It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to make certain working parts of the machine from lighter weight materials than steel, since it has been held to be within the general skill of a

worker in the art, select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 123 USPQ 416.

The Applicant further argues "the tubular element (18) of Darda does not serve as a piston guide...Rather, the tubular element is screwed upwardly into a cylinder of the rock breaking apparatus of Darda".

However, in response to Applicant's piecemeal analysis of the references, it has been held that one cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references. In re Killer, 208 USPQ 871 (CCPA 1981). In this case, Linz, the primary reference discloses the claimed invention except for the use of a preferred material. Darda teaches an earth working utilizing materials "less dense than steel", which is the claimed preferred material.

The Applicant argues against the rejections of Claims 3, 4 by stating "there is no teaching or suggestion to combine the references...Furthermore, even if the references were combined the invention of claims 3 and 4 would not result". The Applicant supports the argument by stating "For example, Claim 3 requires the material from which the at least one structural element is produced to be a plastic...Additionally, claim 4 depends from claim 1 and requires the piston guide be produced from plastic in one piece together with at least one dampening bushing".

However, the claim recites "at least one dampening bush", which is only benefited the Examiner's interpretation that the claim language recites and thus requires a dampening bushing; since, as originally claimed "a damping bush" would have been rejected under U.S.C. 112 2nd paragraph as being indefinite *if not for the benefit of the Examiner's interpretation of the cited claim language*.

Hence, Claim 3 as dependent from Claim 1 recites A tamping machine for soil compaction comprising:

A working mass, which is driven in a tamping manner and which can be driven linearly back and forth.

A crank mechanism and

A spring assembly

A motor belonging to an upper mass.

Wherein, the crank mechanism has at least one structural element which is moveable linearly back and forth and which is produced from a material, the density of which is lower than steel. Further wherein, the structural element which is moveable linearly back and forth is a structural element from the group comprising a connecting rod, a piston pin, a guide piston and a piston guide.

Claim 4 recites essentially the same subject matter, to further include "wherein the piston guide is produced from plastic in one piece together with at least one damping bush".

To that affect, Linz in view of Darda discloses essentially all that is claimed, except for a plastic piston assembly.

Hence, the issue of patentability is again drawn to the use of a preferred material, that is taught by a secondary reference, in this case Pauliukonis teaches a plastic piston and cylinder assembly, including an integrally molded end closure, such as a dampening bushing (4). See col. 2, lines 24-68. Lines 57-65 recite "for high operating pressures, in particular cases in which cushioning is preferred, the design of a composite piston rod assembly...Fig. 4. shows piston rod assembly (7) which comprises...impact-absorbing pegs (8), a rubber piston (24) molded into a 1 piece composite assembly. The piston rod assembly of Fig. 4 ...could be placed into cylinder housing(s) similar to housing (1) of Fig. 1". Hence, Pauliukonis teaches the desirability of using plastic components formed in 1 piece composite assemblies, in high operating pressure applications.

Therefore, the issue of obviousness is reduced to whether or not, the use of a preferred material, such as aluminum or plastic, would be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In this case, the primary reference to Linz, discloses essentially all that is claimed, except for the use of a material less dense than steel.

Secondary references to Darda and Pauliukonis teach the desirability to use aluminum and plastic, respectively in high pressure applications, such as manually operated tamping devices.


5. Applicant's arguments with respect to claims 5-8 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Addie whose telephone number is (703) 305-0135. The examiner can normally be reached on Mon-Fri from 6:30 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached on (703) 308-3870. The fax phone number for this Group is (703) 305-3597.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.



Thomas B. Will
Supervisory Patent Examiner
Group 3600

RWA
7/31/2002